

Abstract

A low-cost and easy-to-produce terahertz band wave processing apparatus with excellent transmission characteristics of terahertz band waves is obtained. The present terahertz band wave processing apparatus has a terahertz wave generator 10 for generating predetermined terahertz waves, and an optics optical plane constructed of high-function resin and disposed in the front of a traveling direction of the generated terahertz waves. More specifically, a light semi-transmissive plate 4 is formed as the optics optical plane. The optical axis between the plate and terahertz wave generator 10 is regulated by a first light transmission regulator 1 to transmit the terahertz waves on the optical axis, and light incident at a predetermined incident angle is reflected by the light semi-transmissive plate 4. Further, second light transmission regulators 2, 3 are set on the optical axis between the light semi-transmissive plate 4 and an Si bolometer. Predetermined visible light enters the light semi-transmissive plate 4 as pilot light 12 and is reflected by this light semi-transmissive plate and the optical axis of said reflected visible light is superimposed on the optical axis of the terahertz waves 11. As a result, the optical axis of the terahertz waves 11 can be visually recognized in a simulated manner by the visible light.